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PILOT KNOB ACEC

MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT

United States Department of Interior
BUREAU OF LAND MANAGEMENT



CALIFORNIA DESERT DISTRICT
PUBLIC AFFAIRS OFFICE
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UNITED STATES GOVERNMENT
BUREAU OF LAND MANAGEMENT

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



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1982

Pilot Knob
Area of Critical Environmental
Concern (ACEC)
Management Plan
July, 1982

Prepared by the
United States Department of the Interior
Bureau of Land Management
California Desert District
El Centro Resource Area Office

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I. Purpose and Objectives

The Pilot Knob Area of Critical Environmental Concern (ACEC) Management Plan has been prepared to increase protection for outstanding cultural resource and Native American values. A secondary purpose of this ACEC is to provide educational and nondestructive interpretive opportunities to the general public.

The ACEC lies in southeastern Imperial County adjacent to the California - Arizona - Mexico border. Pilot Knob ACEC was designated because of rare and unusual collections of archaeological features and the special role Pilot Knob played in Native American spiritual culture.

Heavily patinated cobble terraces constitute a main element of the ACEC. These fragile surfaces reveal numerous geoglyphs and related features. Cobbles from these terraces provided pre-historic populations with an abundant stone source for tool manufacture. Pottery scatters, miscellaneous activity loci, and at least one petroglyph panel are also present. Portions of the ACEC have been nominated to the National Register of Historic Places.

Native American values are high within the ACEC. The area served as the starting point for the four day mourning Keruuk ceremony, which commemorates the death of individuals. A mythical village is reported on the mountain and certain surface features are reported to contain spiritual significance. Pilot

Knob also figures in the creation mythology of several local Native American groups.

According to the California Desert Conservation Area Plan the ACEC occurs within a multiple use class M (moderate) area. The plan permits a wide range of activities in these areas "based upon a controlled balance between higher intensity use and protection of public lands" (BLM 1980). The plan also provides for designation of ACECs to protect unique resource values within any class area.

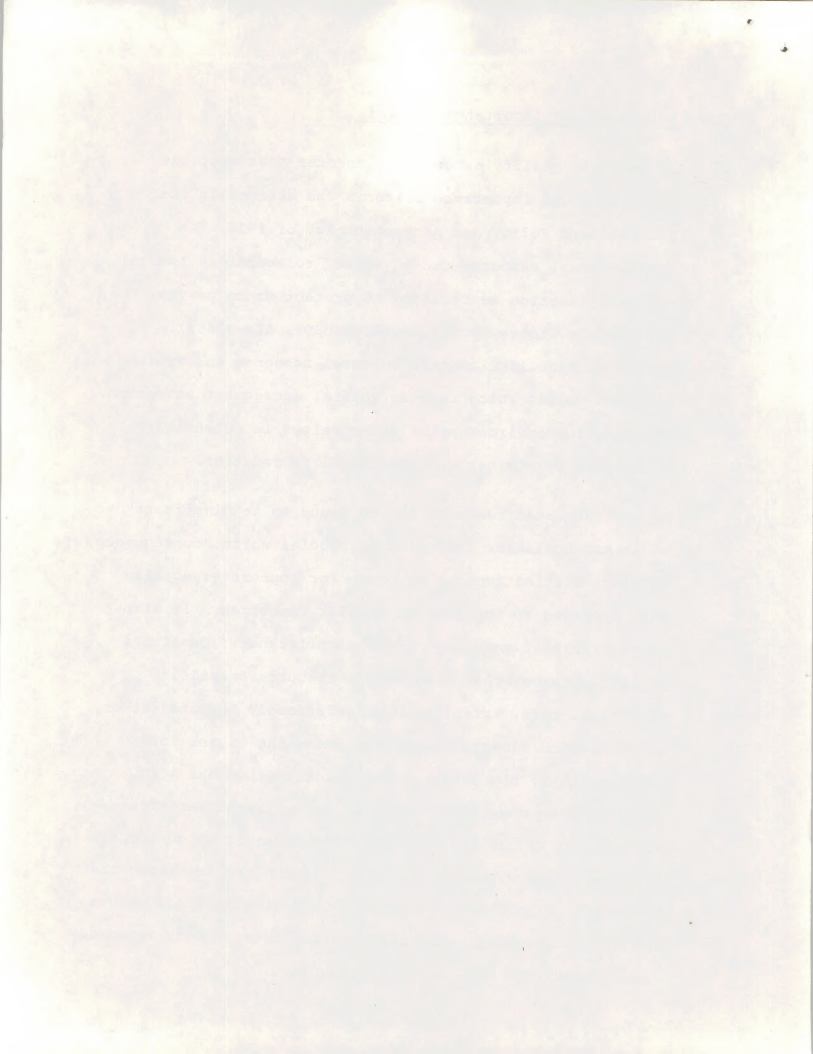
This ACEC is unique in that other resource conflicts are virtually nonexistent. The Pilot Knob area is simply not being utilized by other resource activities. This provides a rare opportunity to preserve rare cultural elements in their environment without threats from multiple-use development. The resources at Pilot Knob, however, are endangered through uncontrolled expansion of long term occupancy camping and from casual visitor exploration.

II. Relevance and Importance Criteria

In order to qualify as an ACEC, an area must meet the "relevance and importance criteria" as defined in the Federal Land Policy and Management Act of 1976. An environmental resource can be found "relevant" if special management action is required to protect or to prevent irreparable damage to the resource (USDI, BLM 1980a).

The Pilot Knob ACEC contain cultural resource and Native American values which require special management attention. The pristine environment of these values is potentially threatened by visitor use and casual degradation.

An environmental resource can be found to be "important" if it has qualities that give it special worth, consequence, meaning, distinctiveness or cause for concern especially when compared to any like or similar resources. It also is generally of more than local significance. Qualities or circumstances that make such a resource fragile, sensitive, rare, irreplaceable, endangered, threatened, or vulnerable to adverse change are among the causes for concern (USDI, BLM 1980a). The values within the ACEC are unique in character. Few, if any cultural resources, are located in the southern California Desert which compare to those found within Pilot Knob. Native American concerns are highly significant and relate to Indian heritage values and ethnic identity. The relationship between both resource values marks the ACEC as a special place.



III. Summary of Major Recommendations

- A. Modify existing, temporary closure (43 CFR 8364.1-1) to a permanent closure.
- B. Recommend that all other routes of travel which do not conflict with sensitive resources within the ACEC be approved for travel during the route designation process, which will be separated from the ACEC planning process.
- C. Reduce size of ACEC from 2,230 acres to 820 acres. Modify boundaries to coincide with cultural resource and Native American values. Adjust western border to follow the southern extension of Sidewinder Road. Shorten northeast corner of ACEC to abut against Pilot Knob.
- D. Prohibit camping in the ACEC.
- E. Initiate a supplemental memorandum of understanding between Bureau of Reclamation and the Bureau of Land Management in order to provide BLM with surface management responsibility.
- F. Prohibit extraction of common varieties of sand, stone, gravel, pumice, pumicite, cinder, clay, and other mineral materials, and petrified wood.
- G. Permit oil and gas explorations only under the restrictions detailed in standard surface disturbance stipulation number

four. Permit geothermal exploration in a manner consistent with cultural resource stipulations presented in the East Mesa Proposed Geothermal Leasing Environmental Assessment.

- H. Submit supplemental nominations to the National National Register of Historic Places as needed based upon new survey information.
- I. Compile and synthesize Native American informant data generated by the Desert Planning Staff and APS/SDG&E Interconnection Project contractors. Include additional interviews, existing ethnographic and documentary information as needed. Acquire cooperation with Quechan Fort Yuma Indian Reservation.
- J. Contract professional line survey of existing geoglyphs and rock art panels.
- K. Conduct additional archaeological inventory and aerial photodocumentation of unsurveyed portions of Pilot Knob ACEC.
- L. Develop public educational or interpretive program. This includes creation of a slide-tape presentation examining the ACEC archaeological and Native American values. Install appropriate and discrete signs for certain resource values. Incorporate and solicit input from Quechan Fort Yuma Indian Reservation personnel.

- M. Increase BLM presence through patrol by rangers and other personnel. Initiate memorandum of understanding with U.S. Border Patrol and Quechan Fort Yuma Indian Reservation to patrol perimeter roads of the ACEC.
- N. Institute resource evaluation program.
- O. Consider additional multiple-use activities not specifically addressed by this plan on a case by case basis. Evaluate proposals through the normal EA process with particular attention directed towards the Cultural resource and Native American values within the ACEC.



IV. Background and Resource Summary

The Pilot Knob ACEC is located in southeastern Imperial Valley one mile south of Sidewinder Road of Interstate 8. Located adjacent to the California-Arizona-Mexico border, the ACEC encompasses 820 acres consisting of portions of sections 27, 28, and 34, T. 16S., R. 21E. . The ACEC lies 45 air miles east of the El Centro, California and and 6 air miles west of Yuma, Arizona.

The following summaries provide information regarding the condition of multiple resources within the ACEC. Additional detailed background information is provided for each resource (except cultural resources) in Appendix A.

Land Status and Use

The entire ACEC is currently under a first form withdrawal by Bureau of Reclamation (BR). Surface management is under the authority of BR since the area is not included in the memorandum of understanding which transmits management responsibility of most BR withdrawn lands to BLM.

Actual use within the ACEC is quite limited. There are no known mining claims within the study area. Geophysical exploration has not taken place in or around the ACEC. Recreation represents the main activity occurring in the vicinity of Pilot Knob. Most activity, however, is limited to long term vehicular camping north of the ACEC.

these resources are not considered to be present in the ACEC, if exploration takes place cultural resources will be considered through the normal environmental assessment process.

Mining activities and source material extraction are nonexistent in the study area. No active or inactive mining claims are present within the ACEC. Furthermore the first form withdrawal by Bureau of Reclamation precludes the possibility of locating any claims. Development of rock rip-rap or sand and gravel resources can be directed outside of the ACEC in order to protect sensitive surface resources.

Flora and Fauna

Flora and fauna resources within the ACEC are limited, but common to the area. Pilot Knob and its associated terraces are virtually devoid of vegetation. Plant species are located in drainage systems and consist primarily of creosote. No threatened or endangered species are recorded in the area.

Wildlife species diversity is expected to be low, reflecting the overall poor habitat and austere environment. The All American canal lies just south of the ACEC and provides wildlife with an excellent habitat.

Recreation

Recreational opportunities within the ACEC are limited. Off

Geology

Pilot Knob peak is the most prominent topographic feature within the ACEC. Rising to an elevation of 874', Pilot Knob consists of highly foliated Precambrian augen gneiss. The peak is relatively free of any intruded granitic rocks or quartzite veins which are often associated with mineralization.

Colorado River terraces form an outstanding natural feature of the ACEC. These highly dissected terraces are composed of heavy concentrations of pebbles and cobbles which are predominately quartzite in composition. Heavily patinated to almost a black color through oxidation and microbial action, these cobbles form a dense mosaic carpet. Surface disturbance reveals a lighter subsurface which is virtually irreparable.

Mineral potential within the ACEC is limited, and consists of speculative potentials for geothermal and natural gas resources. Sand and gravel as well as economically feasible quantities of rock rip-rap are present.

The Pilot Knob ACEC lies outside the East Mesa Known Geothermal Resource Areas, but additional testing is required to fully assess this potential. Several oil and gas leases are located outside, but in the vicinity of the study area. These applications are presumably speculative because of recent discoveries in Baja California, and new leases within the ACEC are possible. Although

road vehicular activity and overnight recreational camping are almost nonexistent because of topographic or environmental restrictions. Rock hounding is identified as a possible activity, but the Pilot Knob area generally lacks gem quality minerals. Recreation in the ACEC is a negligible program within the resource area.

Recreation-related activities, however, are eroding the integrity of the ACEC. The area north of Pilot Knob has become a haven for long term residential camping by out of state visitors. Attention was diverted to Pilot Knob in 1977 because expansion of the Fort Yuma Indian Reservation closed Araz Junction as a site for winter occupation. Visitor use days mushroomed from less than 100 to over 10,000 after the change.

The current focus of camping lies north of Pilot Knob adjacent to Sidewinder Road Turnoff. Occupation is spreading outward as the central area becomes saturated. Expansion has extended along the western flanks of Pilot Knob. Previously pristine terraces were impacted during the winter of 1982. The problem is expected to continue and the numbers of residential visitors (and, consequently impacts to terraces) increase.

Archaeology and Native American Values

Cultural resources values within the ACEC are rich and varied. Archaeological sites and features are impressive

and analysis of their data can make significant contributions to our understanding of southern California prehistory. Pilot Knob is also quite significant to local Native Americans. The relationship between the archaeology and tangible evidence of Native American legends or spiritual activities constitutes an important aspect of the ACEC. The occurrence of both elements is unparalleled in southern California.

Several archaeological surveys provide data for the ACEC. Westec Services and Wirth Associates prepared reports in the vicinity of Pilot Knob. The Westec study (Eckhardt 1978) contracted by Bureau of Reclamation examined an area just outside the modified boundaries. Eckhardt (1978) reports several lithic and ceramic scatters in his study area. The Wirth report (Townsend 1980) prepared for SDG&E recorded two large, low density lithic scatters north of Pilot Knob. Actual archaeological survey of the southern terraces has been primarily limited to informal work by the Imperial Valley College-Barker Museum.

Bureau of Reclamation sponsored at least three surveys within the western, deleted portions of the ACEC. These reports recorded the presence of military activity and several small lithic and ceramic scatters (Brown et al. n.d., Brooks et al. 1977, Dewey 1978).

Archaeological materials within Pilot Knob ACEC range from dense lithic scatters to outstanding examples of ground drawings (known as geoglyphs or intaglios) and related, similar

surface features. The terraces south of Pilot Knob provided prehistoric populations with large quantities of fine grained quartzitic cobbles. This lithic resource was readily exploited as large numbers of unifacially and bifacially flaked cobbles are present on terrace pavements.

Additional archaeological evidence is also present. Hammerstones and related battering tools are prevalent. Isolated ceramic sherds and pottery scatters are noted in the site records. The artifactual material suggests that quarrying as well as processing or habitation-related activities were conducted within the ACEC.

Several specialized lithic resource activity areas are recorded on the southern terraces. One of these consists of dense concentrations of quartz flake debris which appears both in circular chipping stations and in linear arrangements within trail segments. Quartz flakes also appear to have been used to cover at least one cleared circle. Finally, the ACEC contains at least one area where gneiss was reduced and pulverized. Additional features certainly occur within the study area.

The time depth associated with Pilot Knob archaeology is unknown. Heavily patinated cobble tools, common to the ACEC, have been associated with the southern California variant of paleo-Indian culture, the San Dieguito (Rogers 1939, 1966). This group is generally accepted to have occupied the region as far back as 12,000 years ago.

These people are inferred to have followed a basic hunter-gatherer life style. The San Dieguito material culture is comprised of a relatively simple, but efficient tool assemblage. The final period of this stage produced finely made bifaces using pressure flaking techniques.

Paleo-Indian designations for lithic bearing sites, however, are increasing being questioned. The lack of time-sensitive diagnostic artifacts plagues San Dieguito studies. Similar tool types occur throughout the period of southern California human occupation. Patination, often a criteria used in age assignment, is a phenomena only poorly understood and its rate of development remains undocumented (Crabtree 1981). The abundance of cobble-based artifacts within the ACEC represents an excellent opportunity for examination, analysis, and refinement of San Deiguito lithic technology.

If it can be demonstrated that Pilot Knob archaeology and stone tools represents paleo-Indian occupation, then the ACEC has experienced a long range of Native American use. Pottery scatters within the study area are, of course, associated with late prehistoric or recent Indian populations. At least one geoglyph and petroglyph element apparently records Spanish intrusion in the region.

The Pilot Knob ACEC archaeological data base also contains a wide range of ground features. Cairns, cleared circles, cleared rings (dance circles), horse and lizard geoglyphs, as well as several anthropomorphic stick figures are present on the southern terraces. A multitude of trails cross the

ACEC, although several of these are undoubtedly results of illegal immigration activity. A petroglyph panel, with a horse and rider element, complete the known archaeological picture within Pilot Knob ACEC.

Native American values associated with the ACEC include spiritual, mythical, and perhaps political aspects of local Indian culture. The Quechan, Kamia (or Imperial Valley Kumeyaay), and Cocopah people are the main groups associated with Pilot Knob. The Halchidhoma and Kaveltcadom, however, are also linked to the peak (Woods 1980). Pilot Knob is considered important to their heritage and ethnic identity. The following discussion presents a sketch of the importance of the ACEC to Native American groups. For detailed ethnographic information one should consult Forde (1931), Gifford (1931, 1933, 1936), Bolton (1930), Kroeber (1956), and Forbes (1965).

The Pilot Knob area held a great deal of importance to the spiritual life of early Quechan people. The peak marked start of the four day Keruuk trek. This mourning ceremony commemorated an individual's death. Structures were built, images of the deceased were constructed, and dances were held as part of the activities (Forde 1931 and Probes 1965). The cleared ring (also often identified as a dance circle) found in the ACEC may represent an archaeological manifestation of this ceremony. Additional research is needed to examine this possible relationship.

Traditionally, the Quechan traveled by wagon or on foot

from Pilot Knob to Parker during the ceremony. Mourners stopped at the Cargo Muchacho Mountains and Palo Verde while enroute (USDI, BLM 1978). The Keruuk was held in memory of a mythical ceremony marking the death of Kwickumat, a great spirit who figures in Quechan creation mythology. The Keruuk was also held to ease feelings of remorse over the loss of loved ones (Forbes 1965).

The importance of this ceremony is reflected by Kroeber's (1953) work on the California Indians. In general terms, he states that:

The impress of death is heavy on the mind of the California Indian. He thinks of it, speaks of it, tries to die where he has lived, saves property for years for his funeral, weeps unrestrainedly when the recollection of his dear ones makes him think of his own end. He wails for days for his kin, cuts his hair, and shudders at their mention, but lavishes his wealth in their memory.... (Kroeber 1953).

Other mythical or spiritual activities and events are associated with the area. Pilot Knob terraces are reported to be the site of a mythical village (BLM 1978) and the location for acquiring dreams or visions (Woods 1980). The latter statement is particularly important. According to Forbes (1965) the acquisition of spritual power was a major goal in Quechan life. He reports that they maintained a dual philosophy of life, but stressed mystical reality over physical reality. Quechan individuals obtained power by establishing contact with the sprit world through dreams

(1965: 63-65). Some of the cleared circles in the ACEC may be linked with such vision quests. Demonstration of this possibility is quite difficult, however.

The mountain also figures into some creation myths of various local groups. Certain archaeological features located on the southern terraces contain special significance. Several of the anthropomorphic stick figures created on terrace surfaces may relate to a Quechan legend. The story involves two brothers who were responsible for creating the earth. One brother was evil and had to be killed in order to protect the world (Johnson 1982).

The famous horse geoglyph also has mythical associations. One informant indicated that the feature was used to forecast certain future events. Local Native American Folklore indicates that two horse figures were once located on Pilot Knob. Quarrying activities on the north side have apparently destroyed one effigy. These figures represented opposing forces, one associated with the Cocopah and the other with either the Kamia or Quechan. The outcome of expected battles and even the weather could be predicted through visits to these geoglyphs (Woods 1982).

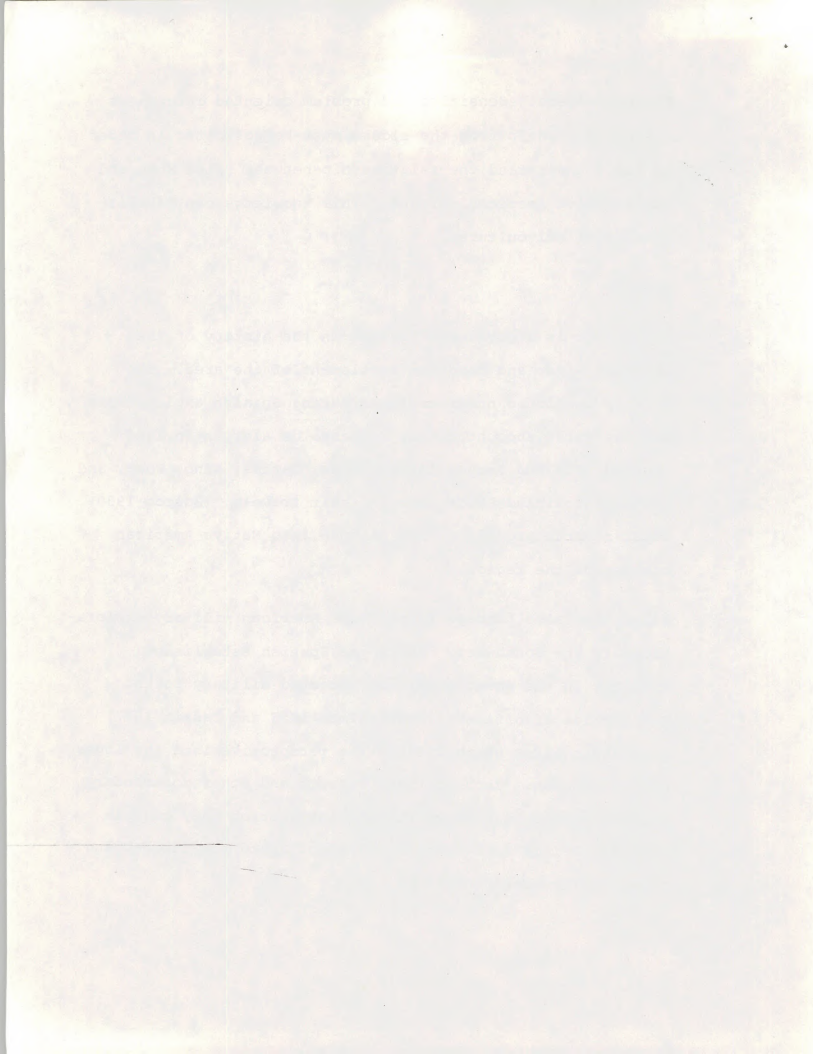
The above description only outlines the Native American significance of Pilot Knob. Much data and information exists from various recent ethnographic interviews (Kroeber 1956, USDI, BLM 1978, Woods 1982). Synthesizing this information remains an important project. The main source of information, however, remains uncollected among Quechan and

Cocopah elders. Sensitive and problem oriented interviews are needed. Help from the elders must be solicited in order to fully understand the relationship between Pilot Knob and local Native American culture. This knowledge can benefit members of all cultures.

History

Pilot Knob is a prominent feature in the history of the Colorado River and European settlement of the area. The Peak is mentioned numerous times during Spanish explorations and was first encountered by Hermando de Alarcon in 1540 (Bolton 1930 and Forbes 1965). Anza, Garces, Kino, Font, and others chronicled Pilot Knob in their travels (Bolton 1930). Their reports provide a rare glimpse into Native American customs of the region.

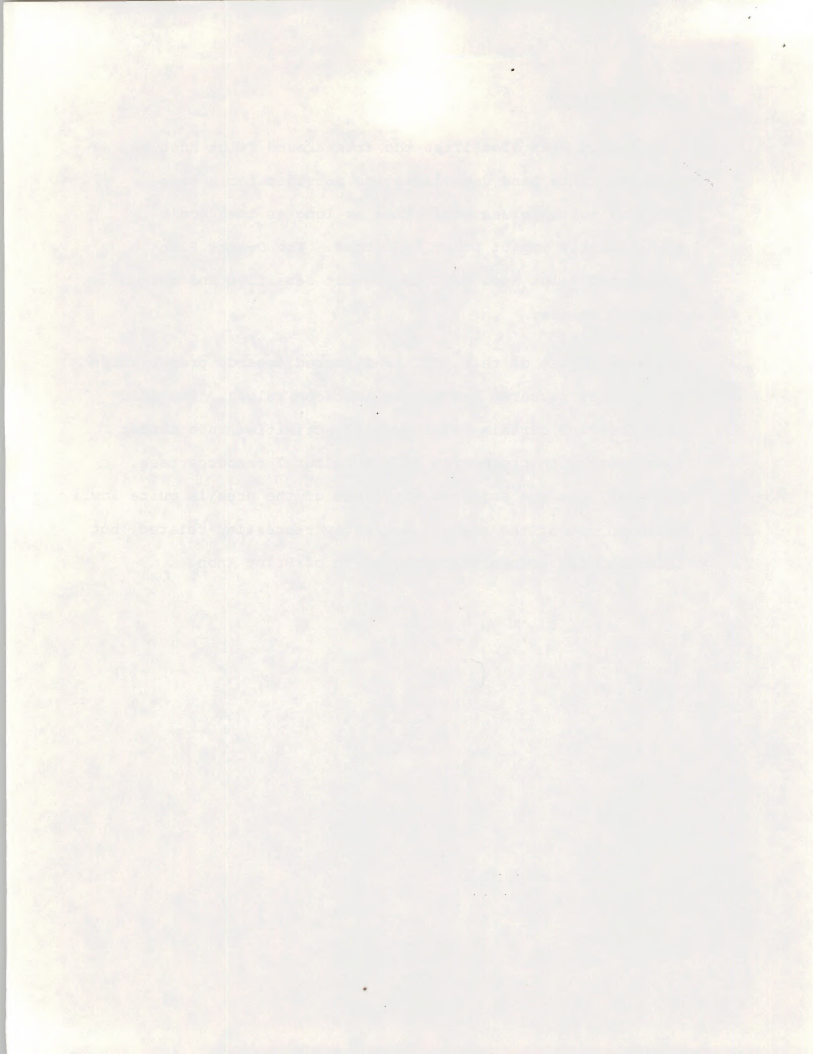
Pilot Knob also figures into latter American military explorations in the Southwest. Where the Spanish established Missions in the area, Americans erected military forts. The diaries of officers (Heintzelman 1853 and Tassin 1877) and others allow us an interesting perspective into the lives of the Quechan. Each of these reports and other documentary sources should be gleaned for the information they contain regarding Pilot Knob and its relationship to the Quechan and other Native American groups.



V. Use Philosophy

This Desert Plan classifies the area around Pilot Knob as class M. This land use allocation provides for a wide range of multiple use activities as long as they don't significantly impact other resources. The Desert Plan designated Pilot Knob ACEC to protect sensitive and unique cultural values.

The main thrust of this ACEC is directed towards preservation of cultural resource and Native American values. The ACEC will restrict certain developmental activities in a manner consistent with protection of the cultural resource base. Few conflicts are expected since use of the area is quite low. the main use of the area is currently recreation-related, but this activity occurs primarily north of Pilot Knob.



VI. Planned Actions

The following management actions will be implemented to protect sensitive cultural resource and Native American values in the Pilot Knob ACEC:

- A. Goal: Protect fragile cobble terrace surfaces and cultural resource values from additional disturbance from off-road vehicle (ORV) activity.

Action: Modify existing temporary route closure which restricts access to the south eastern portion of the ACEC. Change order to a permanent closure. Limit vehicular use to approved routes of travel and prohibit vehicular and recreational camping from the ACEC.

Discussion: The ACEC contains outstanding examples of heavily patinated and desert varnished cobble terraces. Disruption of these surfaces results in permanent disfigurement. Geoglyphs and other prehistoric evidence located on such terraces are difficult to observe from ground level. These features are extremely fragile and susceptible to irreparable damage from vehicular and foot traffic.

Winter camping in the Pilot Knob area has drastically increased in recent years. Long term recreational vehicular camping has impacted western portions of the ACEC. This activity should be eliminated to protect terrace surfaces and archaeological features.

Implementation: Approve two existing roads through the normal route approval process. These include the southern extension of Sidewinder Road and the main Border Patrol route which parallels the All American canal. Prohibit use of internal ACEC routes. Ensure compliance of route approval decisions through erection of appropriate signs and placement of rock barriers. Increase BLM presence to inform visitors of limits on camping areas and locations of approved routes.

- B. Goal: Increase management effectiveness through a reduction in the ACEC acreage.

Action: Modify ACEC boundaries to coincide with actual resource values. Eliminate those areas which lack critical resources.

Discussion: Much of the designated ACEC lacks outstanding cultural resource values. Providing special management protective prescription on such areas would dilute their effectiveness for areas of high cultural resource or Native American values. Precise boundaries will make provisions outlined in this plan enforceable and defensible.

Implementation: Reduce ACEC acreage from 2,230 acres to 820 acres. Shift western border to correspond with the southern extension of Sidewinder Road. Shift the

north eastern border to abut against Pilot Knob. The latter action eliminates an unenforceable segment from the ACEC.

- C. Goal: Minimize potential impacts from energy-related exploration and development of saleable material within the ACEC.

Action: Allow energy-related exploration only under restrictions outlined in the standard surface disturbance stipulation number four for oil and gas activity. Follow operational procedures presented in the East Mesa Proposed Geothermal Leasing Environmental Assessment for Potential geothermal activity. Surface disturbance from saleable material extraction is prohibited by this plan.

Discussion: Rare and irreplaceable surface archaeological features will receive adequate environmental consideration through enactment of this prescription. Stipulations required for oil and gas as well as geothermal exploration will protect cultural resource values within the ACEC. Saleable minerals are easily accessible outside the Pilot Knob ACEC. Prohibiting development will eliminate unnecessary degradation of the resource base and will not place burdens upon possible operators.

Implementation: Follow Bureau policies regarding oil and gas or geothermal development. Reject any application or free use permit for saleable materials.

D. Goal: Increase legal, administrative, and bureacratic protection for resource values in the Pilot Knob ACEC.

Action: Initiate and complete a supplemental memorandum of understanding between the Bureau of Land Management and the Bureau of Reclamation. Prepare and submit supplemental nomination to the National Register of Historic Places as additional survey reveals proprities eligible for nomination.

Discussion: Bureau of Reclamation currently enjoys surface management responsibility over the area encompassed by the ACEC. Entering into a MOU between BLM and BR would maintain the first form withdrawal and provide BLM with needed management. Including cultural resource properties on the National Register provides them with status and insures compliance with 36 CFR 800.

Implementation: Initiate discussions with BR to prepare and develop a supplemental MOU.

E. Goal: Record and document geoglyphs, cairns, trails, cleared circles, rock art, and other archaeological features in the ACEC.

Action: Contract for a professional line survey of each recorded geoglyph element and related features in the ACEC. Expand cultural resource survey in order to identify additional surface phenomena.

Discussion: Adequate documentation of geoglyphs and other archaeological features which triggered designation of the ACEC is necessary. Scale drawings and complete photodocumentation is required to completely record known features. This information could serve as the foundation of a reconstruction effort, if one should become necessary. A complete recording program would "preserve" data contained by specific resources and would also serve as the basis for development of interpretive programs.

The extent of cultural resources within the ACEC is only partly known. It is necessary to assess resource variability and extent. Each geoglyph and related feature must be identified to insure protection.

Analysis of new survey data would significantly add to the public's knowledge of cultural resources in southern California. Pilot Knob archaeology is unique and many of the sites contain data which can address pan-desert research questions. The cobble-based industry serves as an analytical crucible for examining questions of culture history and lithic technology. The complex and rich artifact assemblages afford an opportunity to examine relationships between geoglyphs and other ground features to lithic work shops. It is a rare event that prehistoric evidence of political, religious or mythical activities are associated mundane economic activities.

Implementation: Fund a professional line survey of geoglyphs and related surface features. Conduct additional cultural resource surveys either through contract or through volunteer agreements.

- F. Goal: Compile and synthesize data regarding the social, political, and spiritual importance placed upon Pilot Knob by local Native Americans.

Action: Synthesize contemporary Native American information on Pilot Knob generated by the Desert Planning Staff and APS/SDG&E Interconnection Project. Incorporate additional documentary, ethnographic data, and supplemental interviews as needed. Incorporate cooperation with the Quechan Fort Yuma Indian Reservation.

Discussion: Some archaeologist believe that geoglyphs represent expressions of Native American political or spiritual activities. The Pilot Knob ACEC provides us with a rare opportunity to ascertain the relationship between Native American beliefs and possible archaeological manifestations of such beliefs. Our knowledge and understanding of Native American values within the ACEC is limited and requires amplification. Appropriate and nonsensitive information could be incorporated into interpretive programs such as that proposed in Goal G.

A cultural anthropologist trained in ethnographic techniques should be employed to prepare this report.

Such a person would have the expertise and background for such a project. The Bureau can maximize the potential for such a study only through use of a specialist.

Implementation: Contract ethnographic synthesis and compilation of data.

- G. Goal: Increase public awareness and sensitivity towards cultural resource and Native American values contained within the ACEC.

Action: Develop and create slide-tape or lecture presentation depicting ACEC resource values for distribution to local schools and interested groups. Incorporate input and solicit assistance from Quechan Fort Yuma Inidan Reservation. Include ACEC within proposed Colorado River "sky trail" being developed by California State Parks and Recreation.

Discussion: The Bureau has a responsibility to interpret cultural resources for the general public. Increased awareness and public education leads to an increased sensitivity towards such resources. A full scale, on the ground interpretive program is inadvisable since the river terraces are simply too fragile to accommodate heavy traffic. Developing a slide presentation should satisfy both goals: interpretation for the general public and protection for rare sensitive resources.

Geoglyphs and other surface features can best be appreciated from the air. Including the ACEC within the California State Parks Colorado River "sky trail" will increase ACEC visibility to pilots in a nondestructive manner.

Implementation: Prepare slide-tape presentation either internally or through contact.

- H. Goal: Determine effectiveness of this management plan and insure compliance with ACEC prescriptions.

Action: Initiate a resource evaluation program. Collect base line data as outlined in Goal E. Increase Bureau presence through increased Ranger patrol and visits by additional BLM personnel.

Discussion: Preservation of archaeological values and fragile terrace surfaces is a main goal of this ACEC. It is important to evaluate the effectiveness of the above management prescriptions. If the resource base deteriorates, then more stringent actions become necessary. The best that can be expected is to maintain current impacts to existing levels.

Implementation: Institute a prescription evaluation program including both aerial and surface aspects. Increase ranger patrol and encourage visits by additional BLM personnel. Enter into a memorandum of understanding

with Border Patrol and the Quechan Fort Yuma Indian
Reservation security personnel to conduct informal
patrols of the ACEC during their normal surveillance
activity.



VII. MONITORING PLAN

The proposed monitoring plan constitutes a key element to preservation and protection of unique elements within Pilot Knob ACEC. Since virtually any intrusion upon terrace surfaces represents a nearly indelible scar, resource evaluation becomes of paramount importance. If a cultural resource loses its integrity, the BLM must step in and take steps to eliminate the impact source or arrest deterioration.

The main thrust of this ACEC management plan is in-place preservation. No elaborate selfguided tours or protective fences are planned as part of the environmental education project. The terrace surfaces are simply too fragile to withstand heavy traffic. Fencing would radically alter the integrity of setting of certain valuable resources. If this preservation through avoidance approach fails and resource values are jepordized then a control barrier fence must be constructed around specific features. This represents a last resort response.

Patrol of perimeter ACEC roads will help alert BLM towards possible vandalism. Rangers form the El Centro Resource Area currently examine the area on a weekly basis. Cooperative agreements should be developed between United State Border Patrol and Quechan Tribal security forces to assist BLM in regular patrol. In unauthorized visitors are detected, then these people could contact BLM for futher investigation. Any degradation of resource values is intolerable.

Specific resource evaluation or monitoring plans involve both aerial photodocumentation and surface visits. Aerial photography must utilize scale control points for base-line data. Flights should continue on an six month basis thereafter.

Ground visits will consist of both oblique photos and a self explanatory impact check sheet. This documentary record will be maintained in a permanent file and violators will be processed into the standard ranger computer tracking system. The check sheet will be organized in such a manner that non-archaeological personnel may conduct surveillance visits. An example monitoring sheet is included in Appendix H.

VIII. Implementation Plan

FISCAL YEAR 1983
Schedule And Cost Estimates

	Materials Costs
1. Designate approved routes of travel. (No WM)	No Cost
2. Signing of southern extension of Side- winder Road and barricade of casual routes. (½ WM)	No Cost
3. Ethnographic contract study (2 WM)	\$5,000
4. Professional line survey of geoglyph element and miscellaneous features. (2 ½ WM)	\$6,000
5. Increase Bureau presence and patrol cooperation with Border Patrol and Quechan Indian Reservation. (1 WM)	No Cost
6. Develop baseline documentation for geoglyph and surface features. (1 WM)	No Cost
	<hr/>
	TOTAL \$ 11,000
	10% Contingency 1,100
	\$ 12,100

FISCAL YEAR 1984

1. Develop side tape presentation in cooperation with Quechan Indian Reservation. (1½ WM)	\$3,000
2. Inventory of additional portions of Pilot Knob terraces. (7 WM)	\$15,000
3. Continue monitoring program, including low level photography. (½ WM)	\$1,000
4. Increase Bureau presence. (1 WM)	No Cost
5. Prepare supplemental National Register Nomination. (1 WM)	
	<hr/>
	TOTAL \$19,000
	10% Contingency 1,900
	\$20,900

FISCAL YEAR 1985

1. Complete resource identification within ACEC. (2½ WM)	\$6,000
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- 2. Increase Bureau Presence. (1 WM) No Cost
- 3. Prepare supplemental National Register Nomination. (1 WM) No Cost
- 4. Continue monitoring program, including low level aerial photography. (½ WM) \$1,000
- 5. EVALUATE EFFECTIVENTSS OF ACEC MANAGEMENT PLAN. (1 WM)

	<u>No Cost</u>
TOTAL	<u>\$7,000</u>
10% Contiquency	<u>700</u>
	<u>\$7,700</u>

LX ENVIRONMENTAL ASSESSMENT
(Minimum Acceptable Documentation)
for
PILOT KNOB ACEC MANAGEMENT PLAN
and IMPLEMENTATION

Proposed Action

The Pilot Knob ACEC includes portions of T.16 S., R.21 E., Sections 27, 28, 33, 34. Section VI of the draft Pilot Knob ACEC Management Plan gives a complete description of proposed actions. In summary, the Bureau of Land Management proposes to implement the following actions within Pilot Knob ACEC in order to protect sensitive and outstanding cultural resource and Native American values from incremental loss through visitor abuse and related activities:

- A. Modify existing, temporary closure (43 CFR 8364.1-1) to a permanent closure.
- B. Recommend that all routes of travel which do not conflict with sensitive resources within the ACEC be approved for travel during the route designation process, which will be separate from the ACEC planning process.
- C. Reduce size of ACEC from 2,230 acres to 820 acres. Modify boundaries to coincide with cultural resource and Native American values. Adjust western border to follow the southern extension of Sidewinder Road, shorten northeast corner of ACEC to abut against Pilot Knob.
- D. Prohibit camping in the ACEC.
- E. Initiate a supplemental memorandum of understanding

between Bureau of Reclamation and the Bureau of Land Management in order to provide BLM with surface management responsibility.

- F. Prohibit extraction of common varieties of sand, stone, gravel, pumice, pumicite, cinder, clay, and other mineral materials, and petrified wood.
- G. Permit oil and gas explorations only under the restrictions detailed in standard surface disturbance stipulation number four. Permit geothermal exploration in a manner consistent with cultural resource stipulations presented in the East Mesa Proposed Geothermal Leasing Environmental Assessment.
- H. Submit supplemental nominations to the National Register of Historic Places as needed based upon new survey information.
- I. Compile and synthesize Native American information data generated by the Desert Planning Staff and APS/SDG&E Interconnection Project contractors. Include additional interviews, existing ethnographic and documentary information as needed. Acquire cooperation with Quechan Fort Yuma Indian Reservation.
- J. Contract professional line survey of existing geoglyphs and rock art panels.
- K. Conduct additional archaeological inventory and aerial photodocumentation of unsurveyed portions of Pilot Knob ACEC.

- L. Develop a public educational or interpretive program. This includes creation of a slide-tape presentation examining the ACEC archaeological and Native American values. Install appropriate and discrete signs for certain resource values. Incorporate and solicit input from Quechan Fort Yuma Indian Reservation Personnel.
- M. Increase BLM presence through patrol by rangers and other personnel. Initiate cooperative agreements with the U.S. Border Patrol and Quechan Fort Yuma Indian Reservation to patrol perimeter roads of the ACEC.
- N. Institute resource evaluation program.
- O. Consider additional multiple-use activities not specifically addressed by this plan on a case by case basis. Evaluate proposals through the normal EA process with particular attention directed towards the Cultural Resource and Native American values within the ACEC.

No Action Alternative

If the management actions outlined above are not implemented, then sensitive cultural resource and significant Native American values will be jeopardized and continue to be impacted through visitor use. ORV activity may disrupt cobble terraces, destroying the integrity of archaeological features and their related Native American association. Removal of sand and gravel resources will constitute a

significant impact to ACEC values. Without completion of a supplemental MOU between BLM and BR, the Bureau would not be able to enact these prescriptions. BLM also has a significant responsibility to the general public to interpret and educate them towards resource sensitivities.

Affected Environment

A description of the existing environment is located in Section IV and X of the Pilot Knob ACEC Management Plan.

Environmental Consequences

Potential effects may occur to cultural resource and Native American values because of implementing this plan. Negative impacts, however, are expected to be minimal.

The interpretive program and inclusion of the ACEC within California State Park's "Sky Trail" may alert unconscientious users to the sensitive values in the ACEC. This could result in illicit artifact collecting or even outright vandalism of irreplaceable surface features. An informed public, however, should result in an increase in sensitivity towards the resource. The ultimate goal of any interpretive program is to promote understanding and insure protection through voluntary compliance. The proposed action should protect these resource values.

The proposed action will limit access within the ACEC and

exclude all sand and gravel extraction. The loss of these opportunities is off set by available ORV areas and material outside the ACEC.

Reducing the size of Pilot Knob ACEC will exclude some resources from the umbrella of protection. The revised boundaries, however, better follow the limits of highly significant values and makes the management prescriptions more effective and defensible.

Mitigations

1. Increased Bureau patrols will be used to encourage compliance with road designations.
2. If the management prescriptions proposed in the plan fail to protect sensitive archaeological and Native American values, the modifications must be implemented.

The environmental impacts of the proposed action have been assessed. On the basis of the Environmental Assessment, it has been determined that, after mitigation, there will be no significant impacts resulting from the implementation of the proposed action. Therefore, preparation of an Environmental Impact Statement pursuant to Section 102 (c) of the National Environmental Policy Act of 1969 is not required.

Prepared by:

Team Leader, Archaeologist
El Centro Resource Area

Date

Reviewed by:

Area Manager
El Centro Resource Area

Date

Recommended by:

Environmental Coordinator
California Desert District

Date

Approved by:

District Manager
California Desert District

Date

X. APPENDIXES

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A. RESOURCE SPECIALIST INPUT

*Memorandum*DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

IN REPLY REFER TO:

El Centro Resource Area
333 South Waterman
El Centro, California 922433800, 8131
(C-067.28)

To : Archaeologist, El Centro

Date:

FROM : Geologist, El Centro

SUBJECT: Geology and Related Resources of the Pilot Knob ACEC

The proposed Pilot Knob ACEC is located in the Southern California portion of the Colorado Desert Physiographic Province along the extreme southeast margin of the Salton Trough. This area consists primarily of an isolated elevated gneissic peak surrounded by a gently southwestward sloping alluvial plain.

The peak identified as Pilot Knob is composed entirely of Precambrian (600 million years age and older) highly foliated augen gneiss. Although the term gneiss connotes a well metamorphosed rock, the elliptical swelling and pinching of the quartz-feldspar banding and intense fracturing suggest that this rock has been subjected to extreme pressures and very high temperatures. This rock is part of the metamorphic basement complex which is thought to underlie the majority of the Salton Trough. Pilot Knob itself is relatively free of any intruded granitic rocks or quartz-aplite veins, such as those observed in the Cargo Muchacho Mountains approximately six miles to the north of this peak.

Of primary importance in the Pilot Knob ACEC is not Pilot Knob itself, but rather the cultural resources found on the alluvial terraces which surround Pilot Knob. Native American values are associated with the mountain and surrounding area. These terraces are probably Recent in age (10,000 years old to present) and are composed rounded cobbles with lesser amounts of gravel, sand and silt. The cobbles are essentially quartzite in composition although a small percentage of the cobbles are cryptocrystalline quartz and fossiliferous limestone.

The material, within the ACEC, has a total thickness of several hundred feet and rests conformably on the metamorphic basement rocks. The thickness of this material increases outside of the boundaries of the ACEC as the upper surface of the basement rock descends to greater depths.

These alluvial terraces are the result of flood plain deposits which have lost the majority of its sand, silt and clay components due to both water and wind erosion. The flood plain deposits were formed by the Colorado River during flood stage when the river was carrying a large amount of sediments. The rounded shape of the cobbles indicates the distance that these cobbles have traveled.

Some of these cobbles were probably part of metamorphic strata found along the Colorado River in Arizona, Nevada, and Utah.

Manganese and iron oxides found coating the exposed surfaces of the cobbles suggest that the river has not deposited material on these terraces for the past several hundred and perhaps, several thousand years. Although no precise method currently exists for determining the rate of oxide accumulation, it is safe to say that it has taken at least several hundred years to account for the amount of oxides presently found on the rocks.

Aside from geology, the mineral resources within the Pilot Knob ACEC consist of speculative potentials for geothermal and natural gas resources along with large quantities of rock rip-rap, and sand and gravel resources. The U. S. Geological Survey (USGS) has not classified the area as being prospectively valuable for geothermal resources but this does not necessarily preclude the existence of the resource. The East Mesa and Dunes KGRAs exist within a 30-mile radius of this area and only additional data on the local temperature gradients will be able to determine the viability of geothermal leases or lease applications currently encumber the public land within Pilot Knob ACEC.

The potential for natural gas and perhaps oil is strictly speculative and is directly related to the May 1981 discovery of natural gas in Mexico, approximately 60 miles south of Mexicali. A Federal oil and gas lease application currently encumbers Sections 32 and 33 of the ACEC and was probably filed in response to the discovery in Mexico. This lease will be issued before the end of September 1982.

The probability of development of speculative leases, once issued, cannot be ascertained at this time. However, any major development will require an evaluation by USGS through an EA prior to any actual development. The BLM is required to comment and recommend mitigations when needed to protect the surface resources before any operation can be approved by USGS.

No active or inactive mining claims are known to exist within the ACEC as of March 9, 1982. No locatable mineral/resources are known or suspected to exist in this study area. Mining operations, if they were proposed, would not be legal at the present time as the ACEC is currently encumbered by a first form reclamation withdrawal.

No active or inactive extraction sites are known to exist within the Pilot Knob ACEC. Although sand and gravel resources do exist in the area, any extraction would destroy the very resource the ACEC is proposing to protect. Rip-rap material also exists in this study area but an adequate extraction site already exists on the north side of Pilot Knob.

Recommendations

The development of any mineral resources should be allowed but only in such a way as to not damage the cultural resources within the

Pilot Knob ACEC. For potential geothermal and, or natural gas development, this could entail slant drilling from outside the boundaries of the study area.

The first form reclamation withdrawal currently protects the study area from mining operations. However, should the withdrawal be revoked, the 43 Code of Federal Regulations 3809 mining regulations should be rigidly enforced to protect the cultural values. Mining claim validity examinations should be considered to ascertain the claimant's discovery, if any.

No rip-rap or sand and gravel contracts should be issued within the Pilot Knob ACEC. Adequate deposits of these materials can be found nearby and should lessen or eliminate the demand pressure for material within the study area.

Sean E. Fogarty

Memorandum

DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 El Centro Resource Area
 333 South Waterman
 El Centro, California 92243

IN REPLY REFER TO:
 8223, 8131
 (C-067.23)

To : Archaeologist, El Centro
 FROM : Wildlife Biologist, El Centro
 SUBJECT: Pilot Knob ACEC Wildlife Input

Date: JUN 09 1982

Wildlife species diversity within the Pilot Knob ACEC is expected to be relatively low. Species anticipated to occur include:

Reptiles and Amphibians

Woodhouse's toad
 Great plains toad
 Couch's spadefoot toad
 Bullfrog
 Desert Tortoise
 Banded gecko
 Chuckwalla
 Desert Iguana
 Zebra-tailed lizard
 Colorado desert fringe-toed lizard
 Leopard lizard
 Collared lizard
 Desert spiny lizard
 Side blotched lizard
 Desert horned lizard
 Western whiptail
 Spotted leaf-nosed snake
 Gopher snake
 Yuma kingsnake

Checkered garter snake
 Western diamondback rattlesnake
 Sidewinder

Birds

American kestrel
 Gambel's quail
 Killdeer
 White-winged dove
 Mourning dove
 Ground dove
 Roadrunner
 Burrowing owl
 Lesser nighthawk

Bufo woodhousei
B. cognatus
Scaphiopus couchi
Rana catesbeiana
Gopherus agassizi
Coleonyx variegatus
Sauromalus obesus
Dipsosaurus dorsalis
Callisaurus draconoides
Uma notata
Crotaphytus wislizenii
C. collaris
Sceloporus magister
Uta stansburiana
Phrynosoma platyrhinos
Cnemidophorus tigris
Phyllorhynchus decurtatus
Pituophis melanoleucus
Lampropeltis getulus
yumensis
Thamnophis marcianus
Crotalus atrox
C. cerastes

Falco sparverius
Lophortyx gambelii
Charadrius vociferus
Zenaidura macroura
Z. macroura
Columbina passerina
Geococcyx californianus
Speotyto cunicularia
Chordeiles acutipennis

White-throated swift
Vaux's swift
Horned lark
Common raven
Loggerhead shrike
Scott's oriole
House finch

Aeronautes saxatalis
Chaetura vauxi
Eremophila alpestris
Corvus corax
Lanius ludovicianus
Icterus parisorum
Carpodacus mexicanus

Mammals

Black-tailed jackrabbit
Roundtail ground squirrel
Kit fox
Coyote

Lepus californicus
Citellus tereticaudus
Vulpes macrotis
Canis latrans

Wildlife will benefit from any habitat protection management recommendations proposed in the ACEC Management Plan. Because of the low species diversity and density, and the probable absence of rare species, no specific management recommendations are proposed strictly for wildlife benefit.

Lillian A. Deech

Memorandum

DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 El Centro Resource Area
 333 South Waterman Avenue
 El Centro, California 92243

IN REPLY REFER TO:

8100
 (C-067.47)

To : Area Archaeologist, El Centro Date:

FROM : Outdoor Recreation Planner, El Centro

SUBJECT: Review and Comments of Recommended Management Prescriptions
 for the Pilot Knob ACEC Plan

I have reviewed the proposed management prescriptions developed for the Pilot Knob ACEC Plan. Of particular importance to recreation are items A, B, C, D and I. Before addressing these specific recommendations, however, I wish to briefly discuss the existing visitor use/recreation situation at Pilot Knob in order to provide a basis for my comments.

Much has been said about recent visitor activity at Pilot Knob. The majority of visitor use occurring on or adjacent to the ACEC is not recreational in nature, but rather is long-term occupational or residential use. A term used to describe this activity is "snowbird camping." Although "snowbird camping" is a relatively new phenomenon at Pilot Knob, it appears to be on the increase. Visitor use estimates for the Pilot Knob area show an increase from less than 100 visitors use days (VUDs) in 1977 to 10,000 VUDs in 1978, to over 15,000 VUDs in 1980. This change in visitation appears directly related to changes in visitation at a nearby "snowbird" area known as Araz Junction resulting from a decision to expand the boundary of the Quechan Indian Reservation. As the Quechan tribe took over administration of the expanded reservation, many seasonal users were displaced onto adjacent public lands. Pilot Knob is the closest public land to the Araz Junction site with freeway access. Current visitation at Araz Junction is now primarily limited to short-term, overnight use.

Visitor/vehicle counts for Pilot Knob show peak use occurs during the months of November through March with lowest use during the period of June through September. Winter vehicle counts range from 80 to 150 vehicles per day (160 to 300 people) with summer counts dropping to approximately 15 vehicles per day (30 to 45 persons). On June 9, 1982, 11 vehicles were reported in the Pilot Knob area.

As with other camping and occupation areas, some sites are more desirable than others. In the case of the predominant users of Pilot Knob (retired individuals/couples), vehicular access and a level spot on which to park are most important. Isolation from others does not appear to be a factor in selecting a parking spot. For this reason, most people setup camp along Sidewinder Road near the Interstate 8 off-ramp (at the abandoned service station) or on the network of roads leading off Sidewinder Road to the east along the base of the northern and northwestern

slopes of Pilot Knob. This includes the Bureau of Reclamation quarry site in Section 27. During peak use periods, preferred areas are occupied first leaving less desirable sites for latecomers. During the winter of 1981/1982, "snowbird camping" expanded to the south along the west and southwest slopes of Pilot Knob into the SW¼ of Section 28. At present, such use appears to be limited to a few hundred yards from the Sidewinder Road extension. However, as economic and other conditions worsen, more seasonal visitors are expected to arrive and exert pressure on the ACEC.

In terms of recreational use of the proposed ACEC, major activities include rock collecting and organized tours oriented around archaeological sightseeing and field study. Opportunities for other activities such as off-road vehicle play/touring or overnight camping appear low. The ACEC's lack of water, small size, and lack of desirable terrain/vegetational features are the primary factors contributing to low visitation levels. Opportunities for rock collecting and sightseeing are enhanced by the ACEC's size and network of perimeter access routes suitable for both two-wheel and four-wheel drive vehicles. Some fishing activity is known to occur along the southern boundary of the ACEC in the All American Canal.

My specific comments regarding proposed management prescriptions are as follows:

Item A. Modify existing temporary closure to a permanent closure.

The temporary closure initiated in 1980 has not had a significant adverse effect on recreational use or "snowbird camping." The change in the status of the closure will not change the current situation as it is viewed "on-the-ground." Rock collecting and sightseeing uses will continue as vehicular access on the terrace area is not necessary to support these activities. In regards to "snowbird camping," the closed route is far removed from areas deemed suitable for long-term occupancy uses.

Item B. Recommend that all routes of travel which do not conflict with sensitive resources within the ACEC be approved for travel during the route designation process, which will be separate from the ACEC planning process.

I concur with the intent of the recommendation but disagree with the timing of implementation. I feel that the ACEC plan should identify approved/non-approved routes of travel. In viewing future implementation levels for the Route Approval Process, anytime we conduct surveys and evaluate resource conflicts, we should take advantage of whatever information and funding is provided. The Midway Well Interim Access Guide (of which Pilot Knob is a part) will probably be reprinted in final form with very few changes as the map area is not viewed a "problem area." By including vehicle access as part of the ACEC plan, we would be in the position to update the Midway Well map with decisions which have already been subject to public review and comment.

Item C. Modify ACEC boundary to coincide with resource values. Adjust western border to follow the northern extension of Sidewinder Road. Shorten northeastern corner of ACEC to abut against Pilot Knob.

I agree with the recommendation to adjust the ACEC boundary to reflect sensitive cultural and Native American values. However, the proposed boundary adjustment will not insure the integrity of cultural resources located on the western-most terrace adjacent to Sidewinder Road. If vehicle use restrictions are implemented as part of the ACEC plan, it will take an extraordinary management commitment to prohibit people from driving on this terrace. The situation is compounded by the fact that visitors are at the site from six to eight months at a time. Without daily visits, damage will continue to occur.

In order to maintain the integrity of the ACEC, I recommend adjusting the area boundary further to the east to a large wash which parallels Sidewinder Road. Based upon field inspections, it appears that this physical feature would provide to be a significant obstacle preventing vehicular entry from the west. While the terrace areas to the east would still be vulnerable to vehicle damage by individuals or groups intent on driving up the wash bank, long-term visitors would not attempt to setup camp east of the wash. This would support enforcement and monitoring efforts as patrols could then be scheduled on a weekend rather than a daily basis. Such a boundary adjustment would remove an additional 80 to 100 acres from the ACEC.

As a final comment regarding Item C, I recommend that the area between the wash and Sidewinder Road be inventoried to determine its eligibility for inclusion into the ACEC. If found to conform archaeological values, the area should be developed as a wayside interpretive exhibit. Included at the site would be a designated parking area (existing disturbed area on the terrace) a self-guided interpretive trail and a short one-page brochure identifying the types of resources found in the area and their susceptibility to damage by surface disturbance. In effect, this aspect of my recommendation sets up a zoning concept for the ACEC in which areas west of the large drainage are subject to limited development and vehicular use (parking and access). East of the wash, no development and/or vehicular use would be permitted.

Item D. Prohibit vehicular and recreational camping in the ACEC.

I support the recommendation as it relates to "snowbird camping" however, the issue of enforcement of restriction is again put into questions as no physical barrier is available to keep long-term visitors out. The drainage mentioned for Item C above would prevent such use at minimal expense. "Day-use only" parking restrictions at or near the recommended interpretive site would provide visible "on-the-ground" justification for overnight parking restrictions and may be better received by elderly seasonal visitors.

Recreational camping is not an issue at the ACEC. I do not recommend restrictions on an activity until there is a need for it.

There may be some places within the ACEC where overnight camping would not compromise sensitive cultural values, i.e. sandy washes.

If casual overnight camping needs to be restricted, we could limit such use to appropriate areas.

Item I. Interpretive Program

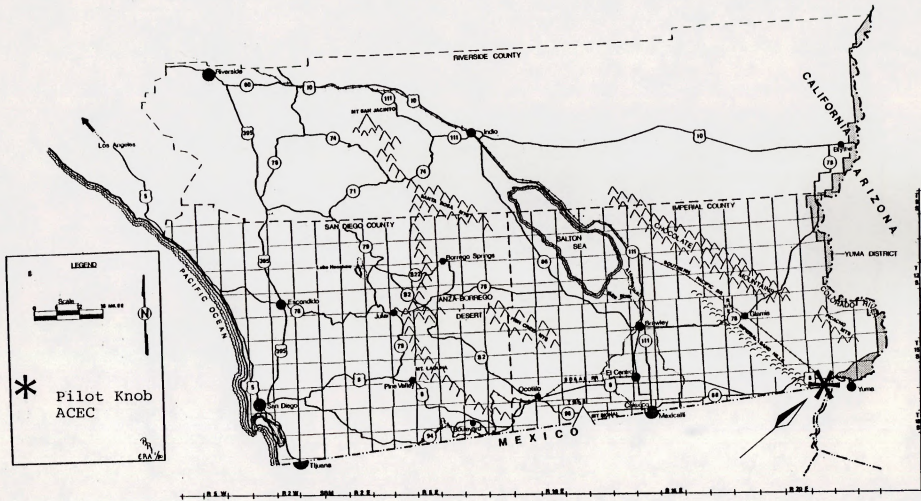
I concur with the recommendation to develop a public educational/interpretive program for the ACEC. The portion of the ACEC located between the Sidewinder Road extension and the large drainage to the east is suggested for an interpretive development (see Item C) as it is already disturbed from vehicular/pedestrian activity. The undisturbed portion of the ACEC (east of the wash) would be protected by channeling visitors away from sensitive sites and areas. As a final comment, I feel it's critical that our management goals and objectives for the ACEC be communicated to those accused (either directly or by inference) of causing damage. Any interpretive/educational development for the ACEC must include an on-site feature, i.e. signs, trail, brochure, or display. Slide programs and lectures designed for classroom presentation are an excellent recommendation, but they will not be effective as a protective device. The fear that signs and/or displays will attract and encourage damage to sensitive resources is a risk we must take in order to maintain our credibility with the general public.

B. MAPS

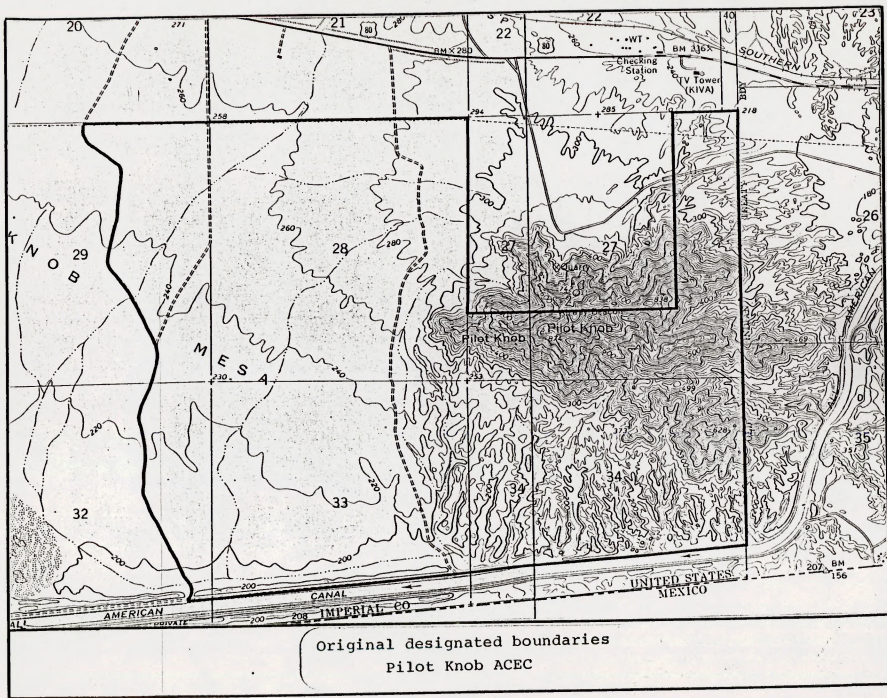
B - 1



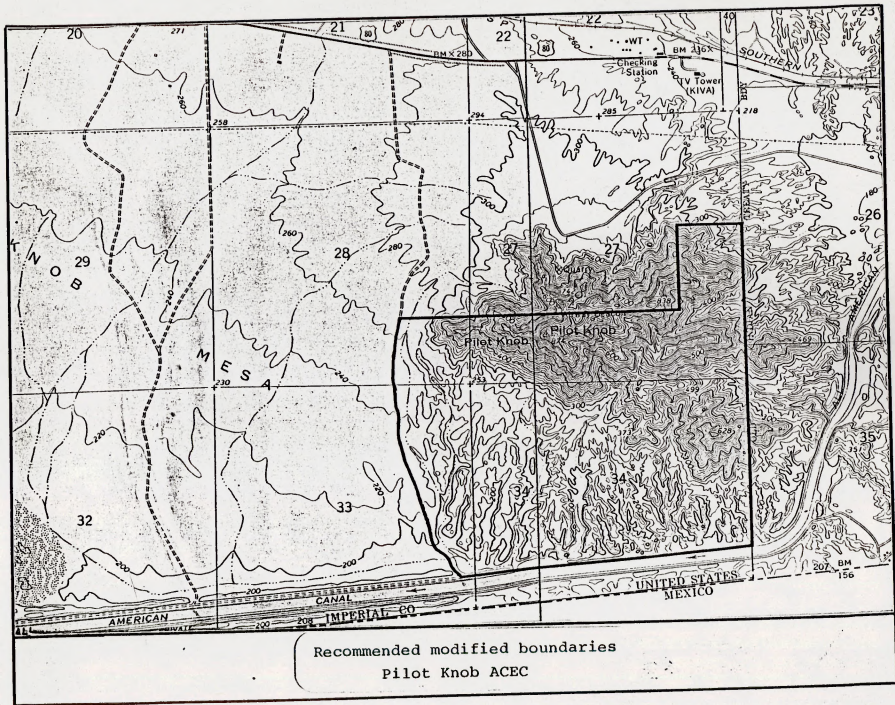
REGIONAL LOCATION MAP



1900









C. ORIGINAL ROUTE CLOSURE ORDER

C - 1



DEPARTMENT OF THE INTERIOR

Bureau of Land Management

California Desert: Route Closure Order

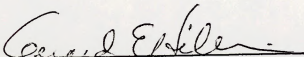
Roads and trails existing on public lands under the administration of the Bureau of Land Management, are normally available for use by the public. However, an access route leading to a southern portion of Pilot Knob is being used by vehicles whose operators are gaining access to the detriment of cultural resources located in the area. The road is located in Section 34, T. 16 S., R. 21 E., San Bernardino Base Meridian.

As a result of the incursion of vehicle traffic in the area, severe damage has occurred to fragile resources in a designated Area of Critical Environmental Concern (ACEC), located adjacent to and near the subject route. Therefore, under the authority of 43 CFR 8364.1-1, the Bureau of Land Management is closing the access route to the area until an activity plan for the ACEC is completed. The road will be barricaded and signed as closed.

Nothing herein shall be construed as barring public use and access to the area by nonvehicular means.

The ACEC Plan will determine appropriate access. If the integrity of cultural resources can be maintained, vehicular access may be permitted and this order rescinded upon ACEC Plan approval.

Any person who knowingly and willfully violates this closure order may be subject to a \$1,000 fine or imprisonment for 12 months or both, under the authority of 43 CFR 8364.2.


Gerald E. Hillier
District Manager, California Desert

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

Furthermore, it highlights the need for regular audits and reviews to identify any discrepancies or areas for improvement. This process helps in maintaining the integrity of the data and ensuring that all procedures are followed correctly.

In addition, the document outlines the responsibilities of various departments in ensuring that the records are up-to-date and accurate. Each department is required to submit their reports on a regular basis to the central record-keeping unit.

It is also noted that the information contained in these records is used for a variety of purposes, including financial reporting, compliance with regulatory requirements, and internal management decisions.

The document concludes by stating that the accuracy and reliability of the records are essential for the long-term success and sustainability of the organization. It calls for a collective effort from all employees to ensure that the highest standards of record-keeping are maintained at all times.

Finally, it provides a list of key contacts and departments responsible for the implementation and maintenance of the record-keeping system. This ensures that all stakeholders are aware of their roles and responsibilities in this process.

The document is intended to serve as a guide for all employees and management alike, ensuring that everyone is on the same page regarding the importance and requirements of the record-keeping system.

It is hoped that this document will help to clarify any confusion and ensure that the record-keeping process is carried out smoothly and effectively. Thank you for your attention and cooperation in this matter.

Yours faithfully,
[Signature]

[Name]
[Title]

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E. INDIVIDUALS AND
GROUPS CONTRACTED



F. PARTICIPATING STAFF



OFFICENAMERESOURCE SPECIALIST

ECRA

Pat Welch

Team Leader Archaeologist

ECRA

Robert W. Schneider

Outdoor Recreation Planner

ECRA

Sean Hagerty

Geologist

ECRA

Lillian Olech

Wildlife Biologist

IVC-BM

Harry Casey

Photography



G. Public comments and responses.



H. Example field monitoring check sheet

H-1

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

PILOT KNOB MONITORING SHEET

(enter date)

Instructions: Check violation under appropriate station and date of visit. Record information on an Incident Report (Form CSO 6260-11). If a station is not checked, then mark the box with an "0".	STATION A	STATION B	STATION C	STATION D	STATION E			
CLOSURE VANDALISM								
<u>gate/fence disturbance</u>								
<u>terrace disturbance (below)</u>								
<u>petroglyph vandalism</u>								
ORV ACTIVITY								
<u>motorcycles</u>								
<u>orv/atc</u>								
VISITORS								
<u>vehicle numbers</u>								
<u>visitor numbers</u>								
<u>access</u>								
SITE VANDALISM								
<u>digging</u>								
<u>collecting</u>								
PHOTOGRAPHS								
<u>yes</u>								
<u>filed</u>								
OTHER								
INITIALS								
COMMENTS								

THE DIRECTOR GENERAL OF THE
BUREAU OF LAND MANAGEMENT
WASHINGTON, D. C.